



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/711,645

09/29/2004

Jerry Karlsson

7589.207.PCUS00

5644

65858

7590

09/18/2008

NOVAK DRUCE AND QUIGG LLP (Volvo)

1000 LOUISIANA STREET

FIFTY-THIRD FLOOR

HOUSTON, TX 77002

EXAMINER

MAZUMDAR, SONYA

ART UNIT

PAPER NUMBER

1791

MAIL DATE

DELIVERY MODE

09/18/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/711,645	Applicant(s) KARLSSON ET AL.	
	Examiner SONYA MAZUMDAR	Art Unit 1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 27-50 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 27-50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Amendments to the specification, see page 2 of remarks filed June 10, 2008, have been acknowledged.
2. Cancellation of claims 1 through 26 has been acknowledged.

Response to Arguments

3. Applicant's arguments, with respect to claims 27 through 50, have been considered but, in light of amendments, are moot in view of the new ground(s) of rejection.

Furthermore, Sobolev (US 5,030,488) teaches using metal cover sheets, as Applicant admits, and metallic fibers in the flock (abstract; column 11, lines 59-61).

Claim Rejections - 35 USC § 112

4. Claim 38 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 38 recites the limitation "the mixture of fibers and adhesive" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 30, 33, and 35 are rejected under 35 U.S.C. 102(b) as being unpatentable by Sobolev.

Sobolev teaches a method for producing laminates comprising two metal sheets with fibrous core made of metallic fibers. Before the two sheets are joined together, one cover sheet is applied in certain areas with a mixture of adhesive and fibers by a spray nozzle (abstract; column 8, lines 17-22; column 11, lines 38-61; Figures 1A and 1B).

7. Claims 46 and 47 are rejected under 35 U.S.C. 102(b) as being unpatentable by Sobolev.

With respect to claim 46, Sobolev teaches a method for producing laminates comprising two metal sheets with fibrous core made of metallic fibers. Before the two sheets are joined together, one cover sheet is applied in certain areas with a mixture of adhesive and fibers by a spray nozzle; therefore the adhesive layer is non-continuous (abstract; column 8, lines 17-22; column 11, lines 38-61; Figures 1A and 1B).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

Art Unit: 1791

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claim 27, 28, 29, 38, 40, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable by Anderson et al. (US 3,684,637) in view of Sobolev.

With respect to claims 27, 28, and 29, Anderson et al. teach a method for producing a laminate with cover sheets (19, 40) and a core there between comprising adhesive and fibers. Before the two cover sheets are joined together, one cover sheet (19) is applied with adhesive (23), and the other cover sheet (40) is initially applied with adhesive (42), fed from a supply source (43) and through a nip formed by a metering roll (44) and an applicator roll (45). Fibers of different kinds (52) are applied onto the cover sheet (40) from a flock supply (53) (column 2, line 13 –column 3, line 60; column 4, lines 50-67; Figure 2).

Art Unit: 1791

Adhesive may be applied by various methods to create a pattern on a cover sheet (column 5, lines 44-50). Fiber properties such as density, thickness, length, and orientation relative to the cover sheets are important to consider when producing a laminate with specifically desired characteristics (column 1, lines 38-39; column 3, lines 26-36; column 4, lines 50-68).

Although Anderson et al. teach applying organic fibers of a different variety (column 4, lines 50-64), Anderson et al. do not teach applying metallic fibers to metallic or inorganic cover sheets. However, Sobolev teaches applying metallic fibers, as an alternative to organic fibers, to metallic cover sheets, as it would provide improved structural strength compared to laminates of the prior art, while also useful in decorative and protective applications (column 1, lines 15-19; column 11, lines 58-62).

With respect to claims 38 and 40, Anderson et al. in view of Sobolev teach keeping certain areas of a laminate free of adhesive and fibers. Sobolev also teaches applying a mixture of metallic and non-metallic fibers (Sobolev: column 11, lines 41-44 and lines 59-62).

With respect to claim 50, Anderson et al. teach a method of electrostatic flocking as an alternative to mechanically applying fibers (Anderson: column 4, line 68 – column 5, line 4).

10. Claims 31 and 32 are rejected under 35 U.S.C. 102(b) as being unpatentable by Sobolev in view of Tsiarkezos et al. (US 6,821,601)

Sobolev teaches a method for producing laminates comprising two metal sheets with fibrous core made of metallic fibers. Before the two sheets are joined together, one

Art Unit: 1791

cover sheet is applied in certain areas with a mixture of adhesive and fibers by a spray nozzle. The laminate is heated after joining the two sheets (abstract; column 8, lines 17-22 and lines 63-68; column 11, lines 38-61; column 32, lines 40-41; Figures 1A and 1B).

Sobolev does not teach fixing fibers by stitch welding. However, it would have been obvious to one having ordinary skill in the art to do so, as Tsiarkezos et al. teach stitch bonding metallic fibers to a metal foil, to ensure the fibers' firm adherence to the metal foil, and heat treating the composite, after applying the fabrics, to stabilize dimensions of the fabric (abstract; column 1, lines 28-37; column 2, line 59 – column 3, line 14; column 3, lines 57-60).

11. Claims 34, 44, and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. in view of Sobolev, as applied to claim 27 above, and further in view of Otomine et al. (US 4,142,929)

The teachings of claim 27 are as described above.

With respect to claim 34, Anderson et al. in view of Sobolev do not teach applying an adhesive by a screen printing method, however, Otomine et al. teach an alternative method of silk screening an adhesive layer (column 3, lines 39-40; column 4, lines 3-9). It would have been obvious to use a screen printing method as Otomine et al. did to if desired to form any complicated letter or graphic adhesive layer to place fibers on.

With respect to claims 44 and 45, Anderson et al. in view of Sobolev do not teach transferring fibers from a carrier to a cover sheet and removing a carrier thereafter.

Art Unit: 1791

Otomine et al. teach transferring a fibrous layer (3) from a base (1) to a substrate (7), and then removing the base (Figures 1 through 3).

It would have been obvious to use a transfer method, such as Otomine et al. taught, and one would have been motivated to do so to give the design a better visual effect that direct application may not allow.

12. Claims 36 and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sobolev, as applied to claim 33 above, and further in view of Gregorian et al. (US 4,035,532)

The teachings of claim 33 are as described above.

Sobolev does not teach using a foamed adhesive, applied substantially in dots. Gregorian et al. teach a method of transferring flock from a temporary substrate to a main substrate, by using a foamed adhesive at a desired viscosity to adhere the flock onto the main substrate (column 2, lines 3-9; column 4, lines 10-22; Figure 2).

It would have been obvious to use a foamed adhesive as Gregorian et al. taught to impart breathability to the main substrate with the adhesive's inherent porosity.

13. Claims 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. in view of Sobolev, as applied to claim 27 above, and further in view of Gregorian et al. (US 4,035,532)

The teachings of claim 27 are as described above.

Anderson et al. in view of Sobolev do not teach using a foamed adhesive, applied substantially in dots. Gregorian et al. teach a method of transferring flock from a temporary substrate to a main substrate, by using a foamed adhesive at a desired

Art Unit: 1791

viscosity to adhere the flock onto the main substrate (column 2, lines 3-9; column 4, lines 10-22; Figure 2).

It would have been obvious to use a foamed adhesive as Gregorian et al. taught to impart breathability to the main substrate with the adhesive's inherent porosity

14. Claim 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. in view of Sobolev, as applied to claim 27 above, and further in view of Abrams et al. (US 5,858,156)

The teachings of claim 27 are as described above.

Anderson et al. in view of Sobolev do not teach applying fibers in the form of a positive/negative pattern onto a cover sheet. Abrams et al. teach electrodepositing flock by passing a sheet between potentials of a high voltage electrostatic field, and an electrode is used to give flock a charge and become aligned with the electrical field lines of force (column 5, lines 40-61; column 6, lines 13-35).

It would have been obvious for Anderson et al. in view of Sobolev to use a method such as Abrams et al. taught, and one would have been motivated to do so as a conventional alternative method in adhering flock to a sheet.

15. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. in view of Sobolev, as applied to claim 27 above, and further in view of Mesek (US 3,975,222)

The teachings of claim 27 are as described above.

Anderson et al. in view of Sobolev do not teach directing a steady or swirled stream of air onto the fibers in order to obtain an inordinate orientation of the fibers.

Art Unit: 1791

Mesek teaches applying fibers through an air stream, which may be of increasing and decreasing fiber content across the stream (abstract; column 9, lines 48-51).

It would have been obvious to Anderson et al. in view of Sobolev to apply fibers through an air stream as Mesek taught, and one would have been motivated to do so to make a flexible laminate with loosely compacted fibers.

16. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. (US '637), as applied to claim 27 above, and further in view of Anderson (US 3,616,007).

The teachings of claim 27 are as described above.

Anderson et al. ('637) in view of Sobolev do not specifically teach steps of both pre-curing and final curing an adhesive layer. Anderson ('007) teaches softening and reactivating an adhesive material by heat before application of fibers and final curing the adhesive before rolling a laminate up for storage (column 4, lines 16-29).

It would have been obvious to pre-cure an adhesive and perform final curing on a laminate as Anderson ('007) taught, and one would have been motivated to do so to partially embed fibers after pre-curing an adhesive and produce a useable product in a final curing of the adhesive.

17. Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sobolev as applied to claim 46 above, and further in view of Otomine et al. (US 4,142,929)

The teachings of claim 46 are as described above.

Anderson et al. in view of Sobolev do not specifically teach applying an adhesive in a pattern of a certain shape. However, Otomine et al. teach applying adhesive by silk

Art Unit: 1791

screening in the shape of a desired pattern to apply fibers thereon in a decorative manner (column 1, lines 50-55; column 3, lines 39-40; column 4, lines 3-9).

18. Claim 49 is rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson et al. in view of Sobolev as applied to claim 27 above.

The teachings of claim 27 are as described above.

Anderson et al. teach using a wide variety of adhesives (column 5, lines 14-44). Applicant also admits that the kind of the adhesive used is substantially determined by the kind of application, the later use of the composite layer structure and especially by the desired properties like for example the stiffness or flexibility, strength and so on, as well as the kind and distribution of the flock fibers (Applicant's specification: paragraph 59). These factors would have been obvious to one having ordinary skill in the art in selecting the proper adhesive which may be achieved in the course of routine experimentation, by reference to standard technical literature (e.g., Adhesive Age trade magazine, Adhesive Handbook), or through consultation with industrial or specialty adhesive suppliers (e.g. Dupont, Dura, Loctite, Lord, etc.).

Conclusion

19. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

Art Unit: 1791

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SONYA MAZUMDAR whose telephone number is (571)272-6019. The examiner can normally be reached on 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Philip Tucker can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/711,645

Page 12

Art Unit: 1791

SM

/Philip C Tucker/

Supervisory Patent Examiner, Art Unit 1791